

KS3 Curriculum Overview: Maths

Rationale: In year 9 we aim to build on the knowledge and understanding gained at year 7 and 8. Students will look at key concepts and how to apply them to problem solving style questions. Students will look at topics in more depth to help develop their mathematical reasoning.

Term / Length of Unit	Outline	Assessment	Home Learning	Resources	Knowledge/Skills End Points	Reading
Yr9 FOUNDATION Autumn 1	Number Algebra	Number unit test Algebra unit test	Set every week by individual teachers	Full SOW in shared area	Calculations Decimal numbers Place Value Factors and Multiples Squares, cubes and roots Index notation Prime factors Algebraic expressions Substitution Formulae Expanding brackets Factorising	Books: Why do buses come in threes? By Jeremy Wyndham The Music of the Primes by Marcus du Sautoy Words with the same meaning: Add & Sum Multiply & Product Divide & Quotient Subtract & Difference Reading strategy: Go through key words and annotate worded problems. Key words: Indices, significant, algebra, formulae, factorising.
Yr9 FOUNDATION Autumn 2	Graphs, tables and charts Fractions and percentages	Graphs, tables and charts unit test Fractions and percentages unit test	Set every week by individual teachers	Full SOW in shared area	Frequency trees Two-way tables Time series Stem and Leaf diagrams Pie charts Scatter graphs Operations with fractions Converting between decimals, fractions and percentages Calculating percentages	Books: The Indisputable Existence of Santa Claus: The Mathematics of Christmas by Dr Thomas Oléron Evans, Hannah Fry Reading strategy: Go through key words and annotate worded problems. Key words: Correlation, denominator, numerator. Etymology of percent.

Yr9 FOUNDATION Spring 1	Equations, inequalities and sequences	Equations, inequalities and sequences unit test	Set every week by individual teachers	Full SOW in shared area	Solving equations Inequality signs Solving inequalities Generating sequences Finding the nth term of a sequence	Books: Dr. Math Explains Algebra by The Math Forum Reading strategy: Go through key words and annotate worded problems. Key words: Inequality, sequences, generating, solving.
Yr9 FOUNDATION Spring 2	Angles Averages and range	Angles unit test Averages and range unit test	Set every week by individual teachers	Full SOW in shared area	Properties of shapes Angles in parallel lines Angles in triangles Exterior and interior angles Mean, Median, Mode and Range Estimating the mean Sampling	Reading strategy: Go through key words and annotate worded problems. Key words: Parallel, exterior, interior, isosceles, scalene, equilateral. Etymology of equal.
Yr9 FOUNDATION Summer 1	Perimeter, area and volume	Perimeter, area and volume unit test	Set every week by individual teachers	Full SOW in shared area	Rectangles, Parallelograms and triangles Trapezia Converting unites Area of compound shapes Surface area of 3D shapes Volume of prisms	Books: Perimeter, Area, and Volume: A Monster Book of Dimensions Reading strategy: Go through key words and annotate worded problems. Key words: Rectangle, Parallelogram, Trapezium Etymology of parallelogram and polygon.
Yr9 FOUNDATION Summer 2	Graphs Transformations	Graphs unit test Transformations unit test	Set every week by individual teachers	Full SOW in shared area	Coordinates Linear graphs Gradient $Y=mx+c$ Real life graphs Distance-time graphs Translation reflection, rotation and enlargement	Books: Dr. Math Explains Algebra by The Math Forum Reading strategy: Go through key words and annotate worded problems. Key words:

						<p>Gradient, transformation, translation, reflection, rotation, enlargement.</p> <p>Etymology of enlargement.</p>
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